

Mr. Cassin presented a paper entitled "Synopsis of the Falconidæ which inhabit America north of Mexico, and descriptions of new species." Referred to Dr. Wilson, Mr. Ord and Col. McCall.

A note was read from Mrs. C. M. Gambel, accompanying the Journal of her late husband, Dr. Wm. Gambel, of an overland expedition to California in 1849, and giving permission to the Academy to examine and make selections from the manuscript. Referred to the Curators.

December 27th.

Vice-President BRIDGES in the Chair.

The Committee on Dr. Le Conte's "Descriptions of new Coleoptera from Texas, chiefly collected by the U. S. Boundary Commission," reported in favor of publication in the Proceedings.

Descriptions of some new Coleoptera from Texas, chiefly collected by the Mexican Boundary Commission.

Most of the new species described in the following pages, were collected by Mr. Arthur Schott, of the Mexican Boundary Commission under Major Emory; they were procured in the vicinity of Eagle Pass, on the lower portion of the Rio Grande. With them were several other species, belonging to genera of less interest, and which are here omitted, because numerous species from other parts of the country yet remain to be described. Those herein contained belong to groups which are particularly interesting, or which have been made the subject of special essays. In the genus *Ophryastes*, I have added descriptions of several contained in my collection from Missouri and California, and added new descriptions of the two species already described by Say and Schönherr, so that the student who may have occasion to refer to the genus, may find in a small space, the distinctive characters of all the species yet known within our territory.

To indicate the importance of accurate collections in distant parts of the country, I may add that, while the collection contained about 110 species of Coleoptera, 40 were new to our fauna. A much greater portion would have been added, had not the very active researches of Lieut. H. Haldeman already discovered a large number of those not included in the forty above mentioned.

Besides the species below described, I have added in the Revision of the Elateridæ of the United States, just published in the 10th volume of the Transactions of the American Philosophical Society, descriptions of two very large species of *Agrypus*, a genus not before fully enrolled in our fauna.

CICINDELA Linn.

Among the species belonging to our fauna must be placed *C. curvata* Chev., and *C. decostigma* Chev. (Col. Mex. fasc. 2d.) Mexican species which have been found in Texas. The former was collected by the Commission, the latter by Lieut. Haldeman.

C. vulturina, supra sericeo-nigra, capite thoraceque virescentibus, labro albo, medio producto, 3-dentato, thorace paulo convexo, postice angustiore, lateribus late rotundatis breviter albo-pilosis, antice posticeque profundissime impresso, tenuiter canaliculato, elytris thorace sesqui latoribus minus convexis, apice late rotundatis non serratis, margine tenui cyanescente, versus basin vage punctatis; subtus purpureo-cyanea; fronte plana, utrinque subtiliter rugosa, glabra. Long. .63-.74.

Eagle Pass. The first joint of the labial palpi of the male is testaceous. This species seems to be most commonly without white marks on the elytra; the color in one specimen is greenish black, in the others it is pure black, at least on the elytra. One specimen has a faint rudiment of an apical lunule; in an-

other the lunule is narrow and divided, and the humerus has a distinct round white spot; in a third there is no humeral spot, but there is a narrow transverse line about the middle, and one-third way from the margin to the suture; a small spot below and inside of this is obsoletely connected with it; the line joining these spots, and which represents the medial band of the elytra, makes an angle of about 45° with the suture. This species is very closely allied to *C. obsoleta Say*, and differs from it principally by the thorax being more convex and distinctly rounded on the sides.

TOSTEGOPTERA Blanch.

1. *T. ventricosa*, atra convexa (glabra?) thorace lateribus rotundatis serratis medio subangulatis confertim grosse punctato, callo pone medium dorsali lævi, disco antice vix obsolete impresso, elytris subsulcatis, confluentius minus profunde punctatis, punctis granulo elevato munitis, costis fere lævibus. Long. .9, lat. .57.

Two females. This species is very different from *S. cribosa Lec.* (Proc. Acad. Nat. Sc. 6, 23), by the punctures of the thorax being smaller and more regular, and by the absence of the distinct flattened surface before the middle; the elytra are also more distinctly sulcate. I am inclined to believe that these species are in reality furnished with hairs or scales when living, and that the little granule observed in each of the large punctures of the elytra is the attachment of such scales. The fine scattered punctures of the under surface are furnished with short hairs, but those of the upper surface are entirely glabrous.

2. *T. æqualis*, atra, convexa, thorace lateribus rotundatis vix serratis, medio subangulatis, sat dense minus grosse punctato, pilis albidis consperso, elytris æqualiter sat grosse punctatis, lineis duabus sublævibus vix distinctis, sutura elevata punctis paucis notata. Long. .8, lat. .45.

One female. Easily distinguished by the absence of any distinct grooves and the smaller punctures of the elytra. The punctures of the thorax still retain some elongated flattened white hairs, which may originally have been dense; the punctures of the elytra furnish excessively short, almost invisible white hairs.

I have adopted this genus, because it has been recently proposed, and because I have had no leisure yet to examine critically the group to which it belongs; still, after a comparison between the different species, and some of our common species of *Phyllophaga Harris*, (*Ancylonycha Blanch.*) I have failed to discover any reason why they should be separated.

A new species from Texas completes the connection, by possessing with the thick convex body of *Tostegoptera*, the exact sculpture of *Phyllophaga quercina*.

ERIRHIPIS Burm.

1. *E. Kernii*, nigra, subtus nitida, longe pallide pilosa, supra subnitida, antennis rufescentibus, clypeo tenuiter marginato, vix emarginato, thorace latitudine brevior, lateribus rotundatis basi que luteis, disco punctato, breviter piloso, linea dorsali sublævi subelevata, calloque utrinque vix distincto, elytris plus minusve flavo variegatis, sutura costisque duabus elevatis, interstitiis strigosis et punctatis. Long. .39—54.

Euphoria cernii Haldeman, Stansbury's Exped. to Salt Lake. 374, tab. 9, fig. 10.

Large numbers of this species have been collected by Lieut. Haldeman in Texas, and by the Boundary Commission at Eagle Pass; the original specimen was obtained by the late Mr. R. Kern near Santa Fe.

The male has the club of the antennæ as long as the remaining portion, and the anterior tibiæ armed with two moderate teeth, the third or upper tooth being hardly visible.

In the female the club of the antennæ is shorter than the rest; the anterior tibiæ are armed with three teeth, of which the two inferior are longer than in the male.

In most specimens the elytra are yellow, with the suture, and some spots especially near the suture, black; the black spots gradually enlarge until the elytra

become entirely black; at the same time the yellow at the sides and base of the thorax becomes reduced and gradually disappears.

2. *E. Clarkii*, rufa, nitida, subtus longe pallide pilosa, clypeo nigro tenuiter marginato, antice submarginato, thorace latitudine brevior, lateribus rotundatis, disco utrinque vitta abbreviata punctoque laterali nigris, punctato, linea dorsali calloque utrinque paulo elevatis lævibus, (breviter piloso?) elytris sutura costisque duabus elevatis, interstitiis punctatis et strigosis, rufo-luteis sutura maculisque pluribus nigris, scutello, pectore, genibus tarsisque nigris, illo gutta rufa ornato. Long. .42—5.

Several females collected by Messrs. Clark and Schott. This species seems very closely related to the preceding, but the pale color on the thorax extends also along the middle, and the abdomen and feet are rufous; the antennæ and anterior tibiæ are precisely as in *E. Kernii*.

3. *E. Schottii*, nigra, subtus nitida, longe pallide pilosa, supra opaca, clypeo antice truncato, fortius marginato, lateribus tenuiter marginato, vertice piloso subcarinato, thorace latitudine non brevior, lateribus vix rotundatis, basi media late emarginata rufescente, disco parce punctato, breviter pubescente, elytris striolis obscure luteis transversis plus minusve variegatis, sutura costisque duabus elevatis, interstitiis bistriatis vage punctatis. Long. .45—55.

Several specimens collected at Eagle Pass by Mr. Schott, to whom I take great pleasure in dedicating this species. The club of the antennæ in the male is very long, and the anterior tibiæ have two short teeth at the apex; in the female the club of the antennæ is shorter than the remainder, and the anterior tibiæ are tridentate; the inferior tooth is not, however, elongated as in the two preceding species. It belongs to the same division of the genus as *E. inda*, but the hair on the thorax is not long as in that species. The yellow markings of the elytra are sometimes very abundant and confluent, at other times they are hardly visible; besides the little yellowish red line of the middle of the thorax at the base, a vitta each side of the middle abbreviated at each end can sometimes be seen; the angle each side of the medial emargination is very distinct, while in the two species above described the emargination hardly exists, and the base is almost uniformly broadly rounded.

The beautiful *Dendrobias 4-maculatus Dupont* (Mag. Zool. 1836.) and *Tylosis oculatus Lec.* (Journ. Acad. Nat. Sc., 2d ser. 2, 9) have been added to our fauna. Both have been previously known from Mexico. A remarkable variety of *Tragidion coquus* was also found, in which the yellow spots of the elytra are very small and hardly visible.

STENASPIS Dup.

With this genus must be united *Smileceras Lec.*, founded upon *Cerambyx solitarius Say*. The female of this rare species was procured by the Expedition, and differs from the male in having the antennæ two-thirds the length of the body. The 11th joint is not longer than the 10th, and is distinctly transversely impressed; the joints from the fourth, outwards, have the external edge compressed; the third also has a compressed edge beyond the middle.

Splendens, nigra, thorace latitudine plus sesqui brevior, subinæquali, irregulariter modice punctato, plagis lævibus relictis, postice constricto lateribus dilatato tubercula laterali obtuso, elytris viridi-æneis nitidis subparallelis rugis profundis parvis intricatis, interstitiis elevatis convexis, parce punctulatis, femoribus læte aurantiacis basi apiceque nigris, antennis nigris extrorsum rufescentibus. Long. 1.37.

Texas, and from Dr. Berlandiere's collection. This species must evidently be referred to the present genus, although the prosternum is much less prominent between the coxæ than in the other species, and the lateral tubercle of the thorax is not very distinct. The anterior lateral tubercle observed in *S. solitaria* is entirely wanting, the sides being almost regularly rounded; the posterior constriction is very deep, and the base is more sinuate than in the other species. The head is precisely as in the preceding. The antennæ are black, with the joints growing brownish red from the fourth, outwards; the articulations are

black. The tibiæ are black, pubescent with yellow hair. The very deep and angular confluent rugosities of the elytra and their shining golden green color will readily distinguish this species.

MANNOPHORUS.

Mesosternum simplex, haud protuberans; mandibulæ subacutæ; palpi breves, subæquales, articulo ultimo subcylindrico longiore; thorax rotundatus, non armatus ad apicem transversim constrictus et margine prominulo munitus, basi marginatus; elytra costa eburnea ornata, mutica; pedes tenues, femora mutica non clavata, tarsi postici articulo 1mo paulo elongato; antennæ 11-articulatæ tenues elongatæ, maris articulo ultimo fere diviso.

This genus belongs to the Elaphidion group, but is sufficiently distinct from all the others of that group found in our territory. It will probably fall eventually into some of those invented by Mr. Serville, but from the very artificial nature of the arrangement made by him, it is impossible to determine where it may be found.

It differs from *Elaphidion* by the less dilated palpi, as well as by the 11th joint of the antennæ of the male being somewhat divided as in *Eburia* and *Purpuricenus*, approaching most nearly to the latter, but differing from both by the more cylindrical palpi and by the very curious acute collar which surrounds the apex of the thorax, and which projects very conspicuously at the sides. In the form of body it resembles closely *Crossidius testaceus* Lec., and I was at first inclined to refer it to that genus. The mandibles, however, are not at all bifid, and the body, though slightly pubescent, is much less hairy than in *Crossidius*.

M. lætus, niger, subtus parce pubescens, capite thoraceque confertim grosse punctatis, hoc rotundato, transverso, læte coccineo, basi apiceque nigro-marginato, disco utrinque paulo elevato, elytris dense punctatis, vittis utrinque duabus angustis flavis, (quarum interior lævigata et elevata,) postice abbreviatis, apice subtruncata. Long. .5—6.

Several specimens. The antennæ of the male are longer, those of the female shorter than the body. The thorax has a faint rudiment of a dorsal line near the base. The inner vitta of the elytra is one fourth from the suture, the outer one is near the margin; they are both abbreviated about one seventh from the tip. Varieties occur with the vittæ shorter, and with a black dorsal spot on the thorax near the base.

ELAPHIDION SERV.

1. *E. moestum*, modice robustum, piceum, subnitidum tenuiter cinereo-pubescent, thorace latitudine vix brevior, confertim punctato, lateribus paulo rotundatis, elytris grossius modice punctatis, punctis postice minoribus, apice truncatis, antennis femoribusque muticis. Long. .45—56.

Specimens procured by the expedition at Eagle Pass, and by Dr. Berlandiere in Northern Mexico. Related to *E. pubescens*, but the punctures of the elytra are larger, the color is darker, and the pubescence shorter and more sparse. The thorax of the female is coarsely, that of the male finely punctured.

2. *E. spurcum*, modice elongatum, piceum, parce cinereo-pubescent, pilisque sordide albis irregulariter maculatum, thorace latitudine vix longiore confertim punctato, lateribus rotundatis, elytris sat grosse modice punctatis, punctis postice subtilioribus, apice truncatis, femoribus muticis, antennis articulis 3 et 4 apice spina brevissima armatis. Long. .45.

One specimen. In form and size is very similar to *E. neglectum*, but the thorax has no callosities, and the elytra are slightly truncate and entirely unarmed at the apex. The affinities of this species seem to be with *E. muticum* Newm., but it is much smaller.

3. *E. debile*, elongatum, parce cinereo-pubescent, pilisque sordidis irregulariter conspersum, thorace dense punctato, latitudine paulo longiore, lateribus late rotundatis, linea dorsali fere integra lævi, elytris sat grosse modice puncta-

tis, punctis postis subtilioribus, apice subtruncatis, spina minuta suturali armatis, femoribus muticis, antennis articulis 3—5 spina apicali minuta armatis. Long. .56.

Texas and Northern Mexico. Lieut. Haldeman and Dr. Berlandiere. This species resembles in appearance *E. villosum*, but the glabrous line of the thorax and the absence of the long apical spines of the elytra will at once distinguish it; the spots of yellowish hair on the thorax are inclined to form four vittæ.

The scutellum in the species here described is densely pubescent, but as this seems to be a character in all the species of the genus, I have not mentioned it in the individual descriptions.

OPHRYASTES Sch.

A. Thorax lateribus tuberculato-dilatatis, postice subito valde angustatus.

1. *O. latirostris*, niger, dense albedo-squamosus, rostro crasso, basi impresso trisulcato, sulcis lateralibus divergentibus, obliquis, profundis, thorace valde transverso, inæquali, grosse parce profundissime punctato, lateribus bituberosis, elytris thorace paulo latioribus, ovalibus, fusco subvariegatis, striis profundis punctatis, interstitiis valde convexis. Long. .5.

One specimen found on the Arkansas River, near the mountains. This species differs from all the following by the obliquity of the lateral grooves of the rostrum, which is also thicker than in the other species.

2. *O. ligatus*, niger, dense sordide albo-squamosus, rostro basi impresso, trisulcato, sulcis lateralibus brevibus obliquis profundis, thorace inæquali, latitudine fere duplo brevior, lateribus dilatatis ad medium subangulatis, parce profundissime punctato, profunde canaliculato, elytris thorace paulo latioribus, striis tenuibus vage punctatis, interstitiis paulo convexis, 2, 4 et 6to irregulariter fusco-nigris. Long. .38.

One specimen, Nebraska. This species most resembles *O. sulcirostris*, but the obliquity of the lateral grooves of the rostrum and the difference of the color will distinguish it. The thorax is more deeply channelled, and is less constricted posteriorly.

3. *O. sulcirostris*, niger, dense albedo-squamosus, fusco subvariegatus, rostro basi impresso, trisulcato, sulcis lateralibus brevibus modice profundis, thorace latitudine duplo brevior, canaliculato inæquali, rugoso et grosse parce profundissime punctato, lateribus valde dilatatis, postice subangulatis, elytris thorace paulo latioribus tenuiter striatis striis grosse minus profunde punctatis, interstitiis modice convexis. Long. .34.

Schönherr, Curc. 1, 509 (1833;) 5, 819.

Liparus sulcirostris Say, Journ. Acad. Nat. Sc. 3, 316.

One specimen found on the Arkansas River, near the mountains. The thorax is gradually dilated from the anterior constriction to the widest portion, while in *O. latirostris* it is suddenly dilated behind the anterior constriction, and then sinuate, so as to form two lateral prominences, of which the posterior one is larger and less rounded.

4. *O. tuberosus*, niger, albedo-squamosus, rostro trisulcato, sulcis lateralibus rectis profundis, thorace latitudine plus duplo brevior valde inæquali grosse profunde punctato, lateribus bituberosis, elytris thorace non latioribus striis vix impressis grosse profunde punctatis, interstitiis 2, 4 et 6to atris. Long. .41.

One specimen, Santa Fé, New Mexico, collected by Mr. Fendler. This species differs from the three preceding, by the rostrum not being transversely impressed at the base, and from the next by the lateral grooves of the rostrum extending between the eyes, by the middle groove being less deep, and by the lateral dilatations of the thorax being much more prominent, as well as by the difference in the arrangement of the dark vittæ of the elytra, and the deeper punctures of the striæ. The scales of the thorax have been removed, in great part, so that I do not know if the color was variegated on that part of the body.

5. *O. vittatus*, niger, albedo-squamosus, rostro trisulcato, sulco medio

profundissimo, lateralibus rectis profundis, mox ante oculos abbreviatis, thorace latitudine plus duplo brevior inæquali, parce profunde punctato, lateribus subbituberosis, canaliculato sæpe fusco trivittato, elytris striis vix impressis profunde punctatis, sutura cuprascente, fusca-interstitiis 3, 5 et 7mo fusco-vittatis. Long. .41—.48.

Schönherr, Curc. 1, 509; 5, 819.

Liparus vittatus Say, Journ. Acad. Nat. Sc. 3, 316.

Platte and Arkansas Rivers; not rare; found also by the Commission at Eagle Pass. The elytra of the male are but little wider than the thorax, those of the female are more rounded, a little flattened on the back, and about one half wider than the thorax; the dark vittæ of the thorax and elytra appear to be produced, in part, by abrasion, as specimens occur in which they are hardly to be seen. The suture, as far as the first stria, is covered with brown scales, having a slight copery reflexion.

B. Thorax lateribus late regulariter rotundatis.

6. *O. speciosus*, niger supra cupreo-fusco-squamosus, capite albo-squamoso vitta frontali alteraque pone oculos utrinque fuscis, rostro 5-sulcato, sulcis intermediis brevibus haud profundis, thorace latitudine brevior lateribus rotundato parce subtiliter punctato, subtiliter canaliculato, vitta utrinque dorsali alteraque in latere niveis, elytris elongato-ellipticis striis profundis punctatis, interstitiis vix convexis, parce punctulatis, 2, 4, 7mo niveis, lateribus et subtus albo-squamosus. Long. .8.

Eagle Pass, several specimens. This fine species is certainly the most beautiful of this family yet found in the United States: the lateral grooves of the rostrum are situated in the side and converge a little posteriorly; the intermediate grooves occupy the position of the lateral grooves in the species of division (A.) and are very short, not by any means obvious; the vittæ of the thorax are made up of spots placed close together and separated by narrow lines; two or three small spots are scattered between the dorsal vitta and the lateral one; the anterior and posterior constriction, with their rows of punctures are as in the species of the first division, but are hardly apparent in the lateral outline of the thorax, which is regularly curved, only a little indented at base and apex; the elytra of the male are about one-fourth, those of the female about one-third wider than the thorax; the snowy white vittæ are a little irregular in their outline, the elytra beyond the 7th stria are covered with grayish white scales, similar to those of the under surface, and contrasting with the snowy whiteness of the vittæ; the legs are speckled with dark fuscous, but the usual femoral band is not seen.

7. *O. argentatus*, niger, æqualiter argenteo-albo-squamosus, vix variegatus, rostro basi impresso, trisulcato, sulcis angustis profundis, lateralibus postice paulo incurvis, thorace latitudine paulo brevior, inæquali canaliculato, profunde grosse punctato, lateribus late rotundatis, elytris ovalibus, striis vix impressis punctatis, interstitiis paulo convexis. Long. .69.

One female, with the elytra nearly twice as wide as the thorax, found at Vallecitas, California; the anterior and posterior marginal impressions of the thorax are entire and very distinct, uniting with the dorsal line; the color is more uniform than in the other species, nevertheless the elytra are slightly mottled; an occipital line, the sides of the rostrum, and a space behind the eyes are covered with fuscous metallic scales; the dark band of the femora existing in many of the species is more conspicuous in this, on account of the denser white scales of the legs.

8. *O. varius*, niger, albo-squamosus, capite fusco-variegato, rostro bisulcato, basi impresso, versus apicem medio foveato, thorace latitudine non brevior, subinæquali, subcanaliculato, grosse parce punctato, fusco trivittato, lateribus late rotundatis, elytris striis tenuibus minus profunde at grosse punctatis, interstitiis non convexis, 3io 5toque plus minusve fuscis. Long. .35—.44.

Desert of the Colorado, California; chiefly on *Larrea Mexicana*. The elytra of the male are not wider, those of the female are twice as wide as the thorax.

This species is remarkably different from all those above described by the medial groove of the rostrum being obsolete, except towards the tip, where it appears as an oblong fovea ; the lateral grooves are not deep, and end at the transverse impression at the base of the rostrum. Over the body and legs the white scales are intermixed with pale fuscous, giving a dullness to the color ; the fuscous stripes of the elytra are very variable, sometimes they are well defined ; in other specimens they are confused by fuscous spots on the adjoining interstitial spaces ; the dark fascia of the femora is moderately distinct.

9. *O. sordidus*, niger, griseo-fuscoque squamosus, rostro trisulcato, sulcis profundis, lateralibus rectis brevibus, thorace latitudine sesqui brevior, antice subangustato, lateribus late rotundatis parce punctato, subcanaliculato, elytris convexis thorace latioribus, striis vix impressis punctatis, interstitiis planis. Long. .37.

One female specimen, Platte River. The posterior marginal impression of the thorax is indistinct ; the anterior one is entire, broad but not deep ; the brown and gray scales are intermixed and do not form any well defined spaces ; the latter color predominates on the head, and the former on the elytra.

10. *O. decipiens*, piceus (dense ?) griseo-squamosus (elytris fusco variegatis ?) rostro sulco medio minus profundo antice lato, lateralibus brevibus indistinctis, thorace latitudine non brevior, lateribus antice posticeque paulo rotundatis, disperse profunde punctato, canaliculato, elytris convexis, thorace paulo latioribus, striis modice impressis profunde punctatis, interstitiis paulo convexis. Long. .3.

One male found by the Commission at Eagle Pass. The scales are unfortunately removed in great part, but the elytra at the apex show some appearance of having been variegated with darker marks. Beneath, the body is uniformly and densely covered with grayish scales. The sides of the thorax are nearly straight at the middle, narrowed and rounded slightly at each end ; the transverse marginal impressions are visible only in the sides. The rostrum is more flattened above than in any other species, and the middle groove is very indistinct, and so dilated anteriorly that the surface becomes broadly concave ; the lateral grooves are very short and not deep. The appearance is very similar to *Epicærus*, but the ciliate thoracic postocular lobes require it to be placed in this genus.

Although but two new species of this interesting genus were procured by the Boundary Commission, I have thought that a short account of all the species known to me, would be useful.

PELECYPHORUS Sol.

P. elatus, niger, capite profunde impresso, thorace latitudine paulo brevior, lateribus antice latissime reflexis medio angulatis, angulis anticis et posticis distinctis, elytris oblongo-ovalibus, postice acutiusculis, convexis, thorace plus duplo latioribus punctis rugosis minus profundis impressis, lineis tribus suturaeque lævibus, epipleuris subito inflexis, humeris minutis porrectis. Long. 1.3.

A large species, remarkable for the form of the thorax, which is tolerably regularly hexagonal, with all the angles well defined ; the sides are very strongly reflexed anteriorly, but become gradually narrower from the lateral angle to the base. This species agrees with *P. confluens* Lec. and the next species, as well as with all the others referred by me to the genus, except *Asida anastomosis*, in having elongate palpi with the last joint strongly securiform, and a large lateral opening between the mentum and the base of the mandibles. The species referred by me to *Euschides* (*Stenomorpha Solier.*) have the same form of mouth, but appear to have the last joint of the palpi broader and more regularly triangular. I am doubtful about the generic value of that character, but at present all is confusion in regard to genera of *Tenebrionidæ* ; the prosternum is longitudinally deeply concave between the anterior coxæ, and is not produced posteriorly ; the sides of the elytra are not margined, although the epipleuræ are suddenly inflexed.

P. sordidus, piceo-niger, capite modice impresso, punctato, thorace latitudine fere sesqui brevior, ante medium angustato, lateribus rotundatis subserratis, deplanatis, subreflexis, confertim grosse inæqualiter punctato, elytris oblongo-

ovalibus, convexis postice subacutis, sutura, margine, costisque utrinque duabus elevatis lineis transversis sinuatis inter se irregulariter convexis. Long. .75—.85.

Arkansas River, near the mountains. The female has the elytra twice as wide as the thorax, and more rounded on the sides than in the other sex. The antepectus is sulcate between the coxæ, but the groove is narrower than in the preceding species. The specimens are covered with an earthy matter, which adheres very strongly.

Another species was found by the Commission, of which only the elytra are preserved; they are obovate, dilated gradually for three-fourths of their length somewhat flattened anteriorly, very declivous, and subacute posteriorly, truncate at base with a well defined margin; lateral margin acute, extending within one-fifth of the apex; the disc is sparsely punctured, and each elytron is marked with three faint elevated ridges obsolete at both ends, and of which the external one is the most distinct. The sculpture of the under surface and the proportions of the legs are exactly those of *P. sordidus*, which it will probably resemble in the form of the thorax. As the characters drawn from the form and sculpture of the elytra are very distinct in this genus, I venture to name this species *P. subcostatus*.

MICROSCHATIA Sol.

M. contorta, sordide fusca, longiuscula, capite profunde excavato, thorace hexagonali, latitudine vix brevior, angulis lateralibus apice rotundatis, lateribus postice paulo emarginatis, disco canaliculato, inæquali, elytris postice dilatatis, lateribus serrato-tuberculatis, costa discoidali alte tuberculata irregulariter fracta, cum sutura elevata lineis transversis connexa ornatis. Long. .37.

From the collection of the late Dr. Berlandiere; this very ugly insect bears a certain analogy to *Asida anastomosis* Say, in appearance, but is very distinct by the hexagonal thorax, and more rough elytra; the discoidal costa ends about one-fourth from the apex in a high tubercle; the marginal series of tubercles ends by bending inwards to the suture about one-sixth from the apex.

The maxillary palpi are small, and can be almost entirely concealed behind the mentum, which not only fills up the progenial cavity, but abuts against the mandibles, entirely covering the mouth beneath; this is also the case in *Asida anastomosis*, and in the two species of *Microschatia* described by me (*Ann. Lyc. 5, 129*), which are properly congeneric with that species; it remains still to be determined whether they should enter Solier's genus, of which only one species was known to the inventor.

The present species differs from all the others mentioned in having the third joint of the antennæ not longer than the fourth; the prosternum is broadly produced posteriorly, as in *M. inæqualis*.

Asida anastomosis, incorrectly referred by me to *Pelecyporus*, has the prosternum regularly rounded and not produced posteriorly.

TRIOROPHUS Lec.

T. nodiceps, ater, minus nitidus, capite subtilius postice densius punctato, lateribus margine tenui reflexo, fronte tuberculo magno obtuso ornata, thorace transverso punctato, basi marginato, lateribus rotundato, angulis anticis porrectis, elytris ventricosis rotundatis thorace plus duplo latioribus, 9-seriatim punctatis. Long. .33.

One specimen: Eagle Pass. Differs from the three species described by me (*Ann. Lyc. 5, 141*) in the less punctured head, the much larger frontal tubercle and by the wider and more inflated elytra.

EMBAPHION Say.

1. *E. concavum*, elongato-ellipticum, nigrum, thoracis et elytrorum lateribus altissime reflexis, illo antrorsum angustato disco parce punctulato, lateribus parcius subtilius muricatis, elytris subtiliter muricato-punctatis, brevissime hispidis. Long. .78, lat. .4.

One specimen. Resembles *E. muricatum* Say, but is longer and narrower, with the broad margin of the elytra more suddenly reflexed and almost perpendicular. Although so different in form, this genus is only distinguished from *Eleodes* by the inferior plane of the mentum being more rounded and more deeply impressed; its anterior margin is slightly incised; the lateral angles are so much inflexed as to be invisible; the tarsi are sulcate beneath, and fringed at the apex and sides with short spines; the middle joints of the posterior tarsi appear more elongated than in *Eleodes*. I have great doubt of the generic value of any of these differences, and several nondescript species from New Mexico seem to be intermediate, both by the form of the body and by the differences in the mentum.

LYTTA Linn.

1. *L. fulvipennis* Lec., Proc. Acad. Nat. Sc. 6, 33, though smaller, does not appear sufficiently different from *L. cardinalis* Chev., Col. Mex. cent. 1.

2. *L. cribrata*, atra, capite thoraceque nitidis, punctis paucis impressis, illo macula frontali magna sanguinea, hoc lateribus sanguineis, rotundato, disco bifoveato, vix canaliculato, elytris opacis lineis elevatis irregulariter reticulatis, thorace fere duplo latioribus. Long. .77.

One specimen. This species having the joints of the antennæ oval, and the labrum slightly emarginate, and the outer spur of the posterior tibiæ obtuse, belongs to division A—c of my essay on this genus, (Proc. Acad. 6, 331;) the outer joints of the antennæ are hardly thicker than those near the base; they extend to about the anterior third of the elytra. *L. reticulata* Say (Journ. Acad. Nat. Sc. 3, 305) must resemble this species, but is said to be entirely black, tinged slightly with green. The antennæ are said to be thickened towards the tip, and the punctures of the thorax confluent posteriorly.

3. *L. morio*, atra immaculata, confertim subtiliter punctata, brevissime pubescens, thorace latitudine paulo brevior, subcanaliculato, angulis anticis rotundatis, labro vix emarginato, tibiis posticis calcare externo paulo latiore. Long. .4—53.

This species resembles *L. pensylvanica*, but is larger and more robust, and the thorax is wider; in form it precisely resembles *L. fissilabris* Lec., but the labrum is very slightly emarginate, and the spurs of the posterior tibiæ are not equal. The head, as in *L. pensylvanica*, has a fine glabrous, longitudinal line.

4. *L. sublineata*, elongata, nigra subtiliter dense punctulata, dense luteo-griseo pubescens, thorace capite sesqui angustiore, latitudine paulo longiore, lateribus parallelis antice rotundatis, disco late canaliculato, macula utrinque denudata ad medium ornato, elytris minus dense pubescentibus, sutura, margine, apice vittaque lata postice abbreviata densius griseo pubescentibus, lineis tribus tenuissimis denudatis atris, tarsis palpis antennisque nigris, his articulo 2do 3io paulo brevior. Long. 1.05.

One female, with the first joint of the antennæ extending to the posterior margin of the eyes. This fine species resembles *L. immaculata* and *longicollis*, but the thorax is less convex, and the unequal distribution of the pubescence will distinguish it. The posterior tibiæ appear black, but I do not think that this will be found to be a constant character.

5. *L. fulvescens*, nigra elongata dense subtiliter pubescens, densissime luteo-fulvo-pubescens, thorace capite paulo angustiore, latitudine longiore, lateribus parallelis antice rotundatis, canaliculato, elytris thorace paulo latioribus immaculatis, antennis tarsisque nigris, illis articulo 2do 3io fere æquali, palpis testaceis, apice nigris. Long. .59—68.

Several specimens; found also by Lieut. H. Haldeman in Texas. Resembles *L. longicollis*, but is smaller and without any denuded humeral spot. By the color of the palpi it also differs from all the allied species. The first joint of the antennæ extends a little beyond the posterior margin of the eyes in the male; in the female it is a little shorter.

L. ferruginea Say, *L. conspersa* Lec. and *L. immaculata* Say, besides *L. my-*

labrina *Chevr.* and *L. convexa Lec.*, already known from that region, are also contained in the collection.

The Committee on Dr. Leidy's paper on "Bathynathus borealis, an extinct Saurian of the new Red Sandstone of Prince Edwards Island," reported in favor of publication in the Journal.

The Committee on a paper by Mr. Conrad, "Monograph of the genus Argonauta, with descriptions of five new species," reported in favor of publication in the Journal.

The Committee on the two following papers by Mr. Conrad, reported in favor of publication in the Proceedings.

Synopsis of the Genera CASSIDULA, Humph., and of a proposed new genus ATHLETA.

By T. A. CONRAD.

CASSIDULA, *Humph.*, MELONGENA, *Schum.*

The genus CASSIDULA was founded by Humphreys on *Buccinum calcaratum* (Solander), who included *Murex melongena*, Lin. and a Florida shell which he terms *M. cornuta*, and cites *Buccinum trames*, Solander. This may be *Murex corona*, Gmel.

I know of but one fossil species of this genus, if indeed it really belongs to it, in the Eocene formation. I propose it at present as the type of a subgenus, to which I can refer no other species.

Subgenus LACINIA, Con.

Globose; pillar lip widely reflected, callous; basal emargination profound; base dilated.

I have given a name to this subgenus which Humphreys applied to some unknown shell without describing it.

Fossil species, (Eocene.)

C. (Lacinia) ALVEATA.

Melongena alveata, Silliman's Journ. Jan. 1833, xxiii, p. 344: Con. Tert.

Foss. p. 37, pl. 15, fig. 2.

Pyrula Smithii, LEA. Cont. to Geol. p. 153; pl. 5, fig. 162. Dec. 1833.

Locality. Claiborne, Alab.

Miocene species.

C. LAINEI,

Pyrula Lanei, BAST. GRATELOUP. Conch. Foss. des Terr. Tert. Pl. 1, fig. 2, 3, 8.

C. STROMBOIDES. *Pyrula stromboides*, BAST. GRAT. ib. 2, 3.

Recent Species.

C. HIPPOCASTANUM.

Murex hippocastanum. BORN. Mus. 1780, p. 309. Dillwyn. Cat. p. 710.

Buccinum calcaratum, SOLAND.

Cassidula calcarata, HUMPH. Cat. 1797, p. 32.

Murex calcaratus, DILLWYN. Cat. p. 710.

Pyrula galeodes, LAM. An. sans vert. (Desh. ed.) ix. p. 517. Reeve. Mon.

Pyrula, No. 22.

Inhabits Island of Samar, Philippines.

C. MELONGENA.

Murex melongena, LIN. Martini. ii. p. 74. t. 39, fig. 389. Dillwyn, Cat. p. 710.

Pyrula melongena, LAM. An. sans Vert. ix. p. 509.

Inhabits the West Indies.

C. BISPINOSA,

Pyrula bispinosa, PHILIPPI, Abb. und Besch. Conch. *Pyrula*, pl. 1, fig. 7, 8.

REEVE. *Pyrula*, No. 18.

Inhabits